IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

General Electric Company,

Plaintiff-Counter-Defendant, Case No. 08-cv-298-bbc

v.

SonoSite, Inc.,

Defendant-Counter-Plaintiff.

PLAINTIFF-COUNTER-DEFENDANT
GENERAL ELECTRIC COMPANY'S TRIAL BRIEF

TABLE OF CONTENTS

Page

General Electric Company ("GE") submits this pretrial brief in support of its request that the Court enter judgment that U.S. Patent No. 5,722,412 (the "'412 patent") is invalid over the prior art.

PRELIMINARY STATEMENT

In its summary judgment ruling this Court has asked: "If the technology to create a miniature digital beamformer existed and was an obvious innovation in 1988, why would it take nearly eight years before any company in the ultrasound business created a compact system?" [DKT 227 at 44.] The answer is straightforward: There was no demand or market need for such a product.

The asserted claims of the '412 patent recite an under-ten-pound device having the basic components of an ultrasound system – an array transducer, a sampled data beamformer and standard image processing, filtering and display components. There is no mention of any particular field of use. Nor do the claims recite any particular level of performance. In essence, the claims recite known architecture that has been made smaller.

The capability existed long before 1996 to make ultrasound components small enough to result in an enclosure weighing less than ten pounds having minimal performance and functions. At that time, however, in order to achieve reduced weight it was necessary to trade off functionality and premium features. And customers have consistently refused to accept this trade off. Accordingly, there was no reason for any company to create such a low-end device.

The U.S. Government's offer in 1995 to pour millions into development of a small, highly-durable, battery-operated system with limited features for use by the military created a demand for a small device. The response to the Government by not only SonoSite, but also Q-Dot and Terason, with product proposals having far more sophisticated features than the barebones components claimed in the '412 patent, is perhaps the best evidence that creation of

the primitive lightweight system of the ‘412 patent was obvious and within the skill in the art in 1996.

FACTUAL BACKGROUND

The State of the Art in June 1996

Ultrasound had been around for decades before the ‘412 patent was filed in June 1996. Systems at that time typically had four basic components: an array transducer, a beamformer, filters and image processors. However, ultrasound systems at that time were not limited to those barebones components, but rather had premium features and high-end performance that the market demanded because they were necessary for optimal performance.

GE had established in the mid-1980s the feasibility of making a very small handheld ultrasound system that could be used like a stethoscope. However, its market research established that there was no market demand for such a device for a number of reasons, including its limited capability relative to large console systems, the unavailability of reimbursement for doctors if they purchased it, and the lack of profitability of manufacturing it. (Even today there is essentially no demand for an ultrasound system having very limited capability.) Accordingly, the focus of research and development in the late 1980s and early 1990s was on improved and additional high-end features to be implemented in systems used by specialists and hospitals which could secure reimbursement when they used the systems.

Portability was (and remains) of limited importance to those who used ultrasound systems because most systems were (and are) office and hospital based. Systems on wheeled carts served any limited need for portability. In addition, the carts also provided a convenient and secure platform for use of the ultrasound system at each location, as well as providing organized and compact storage of the peripherals used with an ultrasound system, such as

printers and computer storage devices. Today, with few exceptions, even laptop-style ultrasound systems are sold with a cart because of the convenience a cart affords – portability of not just the ultrasound components, but the peripherals of the system as well, reduced risk of damage to the system while being moved, and a platform on which to perform the ultrasound procedure once moved to a new location. Indeed, even the Venue 40 products accused of infringement in this suit are cart based.

A New Market Demand

In 1994, DARPA, the advanced research arm of the military, made a request for proposals for an under-ten-pound stripped down ultrasound system to be used on the battlefield. Suddenly, there was not only a potential customer to purchase a handheld device, but the customer was prepared to fund research efforts to incorporate into the device specialized features requested by DARPA, such as lower power consumption to permit battery operation.

DARPA convened a conference in January 1995. Invited speakers included Mustafa Karaman ("Karaman'), Matthew O'Donnell ("O'Donnell") and Alice Chiang ("Chiang"), who are authors of several of the prior art publications on which GE relies to invalidate the '412 patent. Also present was GE's expert in this case, Dr. Schafer, who was active in the field at the time. Personnel from SonoSite's predecessor ATL (the patentee on the '412 patent) were also there. However, SonoSite's expert, Dr. Szabo, did not attend, as he had no interest in the field at the time. After the conference, both Chiang and ATL made proposals for specific ways to implement a device of the type DARPA wanted.

Four months after the DARPA conference, in May 1995, Karaman and O'Donnell published an article describing how to implement a pocket-sized handheld system using a digital type of sampled data beamformer. In June 1995, Chiang filed a patent application describing her

handheld under-ten-pound system using an analog type of sampled data beamformer. Not until June 1996 – nearly eighteen months after the DARPA conference and a year after both the Karaman and Chiang references – did SonoSite's predecessor, ATL, file the '412 patent application. When the '412 patent application was filed in June 1996, ATL still had not built any device, and its ideas for how one might be constructed largely consisted of plans to ask chip manufacturers to create the chips that ATL anticipated using to make the known ultrasound architecture smaller. It was not until sometime in 1998 that SonoSite was able to create a working prototype – more than three years after the DARPA conference.

The System Claimed in the '412 Patent

The '412 application as filed was not limited to the specific device that ATL proposed to DARPA. Instead, having had the benefit of seeing the Karaman, O'Donnell, and Chiang work, the original claims of the '412 patent application sought to preempt any and all ultrasound systems that weighed less than ten pounds.[1] In particular, claim 11 – now being asserted in this suit – originally read:

> A handheld ultrasound system comprising:
>
> an array transducer; and
>
> a beamformer for delaying and combining echo signals received by elements of said array transducer,
>
> wherein said array transducer and said beamformer are located in one or more enclosures weighing less than ten pounds (4.5 kilograms).

[1] In contrast to the overbroad '412 patent, SonoSite has secured dozens of other patents that relate more directly to what SonoSite has actually been able to make. Those patents have not been asserted because GE has no products that implement any of SonoSite's patented structures, but rather has developed its own systems and structures.

In effect, this claim purported to cover any device weighing less than ten pounds that merely contained two conventional ultrasound components – an array transducer and a beamformer.

ATL's effort to preempt all under-ten-pound ultrasound devices was only partially successful. The Patent Office cited not one, but two, prior patents covering ultrasound systems weighing less than ten pounds: Chiang and Shinomura. ATL did disclose to the Patent Office the Minivisor, a once cutting-edge commercial prior art ultrasound system. However, ATL's disclosure was incomplete. While ATL mentioned that the Minivisor had an array transducer as did the claims, ATL did not include the key fact that the Minivisor, though bulky-looking, had weighed less than three pounds. Not surprisingly, the Patent Office made no comment on the Minivisor, the weight of which was unknown to it. In addition, the Patent Office was unaware of the DARPA conference or the Karaman and O'Donnell work because ATL did not disclose this information to the Patent Office.

In response to the rejection of its broad claims, ATL narrowed its claims to cover only those ultrasound systems that had a "sampled data" beamformer. ATL argued that the cited prior art did not contain that type of beamformer, contending that the cited prior art used only analog beamformers, not sampled data beamformers. Other than this argument, that the prior art did not literally disclose a sampled data beamformer in an under-ten-pound device, no argument was made that the choice of one type of known beamformer (sampled data) over the other known beamformers (analog) provided any basis for patentability. The Examiner also stated that none of the other components in the dependent claims was unobvious. In response ATL made no argument that there was anything unobvious about any of these additional components. Claim 11, the independent claim being asserted in this case, and the asserted dependent claims were then allowed.

Claim 11 requires only the two most basic components essential to any ultrasound system in 1996: a transducer to transmit and receive signals, and a beamformer to delay and sum those signals. The only limitation on these two components is a requirement that the transducer be an "array transducer" and the beamformer must be a "sampled data beamformer."

The parties agreed that there was no need to interpret the meaning of "array transducer." Accordingly, any array transducer of the many prior art array transducers is within the scope of the claims.

The parties asked the Court to construe the phrase "sampled data beamformer." According to this Court's *Markman* ruling, a beamformer is a sampled data beamformer if it delays and sums digital data (*i.e.*, is a digital beamformer), delays and sums analog sampled data (*i.e.*, is an analog sampled data beamformer) ***or*** delays and sums both samples of analog and digital data (*i.e.*, is a hybrid analog/digital sampled data beamformer). [DKT 82 at 12.]

The evidence will demonstrate that claim 11, which recites only minimal structures and includes no performance or function criteria, is both anticipated and obvious.

The other asserted claims add a digital filter, an image processor that may include a digital scan converter, and a display. The evidence will demonstrate that these components too, are both anticipated and obvious.

Evolution of the Market for Small Ultrasound Devices

Evidence at trial will establish that, once DARPA made its request and provided a motivation to create small ultrasound systems, the means to do so were readily available in the prior art – particularly if (like the '412 claims) there were no performance or function parameters. Indeed, the prior art had already disclosed several small systems, including Chiang, Karaman, Shinomura, and the Minivisor.

However, the evidence will also establish that, even with DARPA's request, the compact ultrasound market was very slow to develop. While ATL, SonoSite's predecessor, claims to have conceived of its system in 1994, it did not have a prototype until years later and was able to finally produce its first commercial product around 1999, the same time when Chiang (through Terason) and Phillips Medical also launched their small products.

Why had it taken so long for small products to be marketed? The evidence will show that the answers are quite straightforward:

1. There continued to be essentially no demand for any product unless it had far more functionality and features to offer than the naked basic components called out in the '412 patent claims;

2. Although miniature systems were feasible, the high cost of miniaturized technology made manufacturing a small product prohibitively expensive due to the high cost of components, and

3. Apart from the DARPA request, the lack of any need or demand for small ultrasound systems *per se* continued.

Today, small electronics are significantly lower in cost and have increased capabilities. (Compare, for example, the cost and features of a cell phone of the mid-1990s with today's camera-computer-email service-notebook-address book-game playing-music playing phone). Now ultrasound systems can be compact while still having the high-end premium features that are not part of the '412 claims. As the evidence will show, most are still used on a cart platform, although the system may be modular, with the ultrasound portion on the cart taking the form of a laptop.

The '412 patent claims only the barebones components of an ultrasound system having a weight less than ten pounds – something that could readily be made even before 1996. The evidence will show that those claims would not have been found patentable had the Patent Office been fully apprised of the prior art and had the Patent Office been applying the correct

patentability standard recently enunciated by the Supreme Court in *KSR International Co. v. Teleflex Inc., et al.*, 550 U.S. 398, 127 S.Ct. 1727 (Apr. 30, 2007). The evidence will show that every limitation of the asserted claims is disclosed in both the Chiang patent and the Karaman Reference. The evidence will show that the O'Donnell Reference discloses architecture identical to that recited in the '412 claims and that it was within the skill of one in the art to incorporate components embodying that architecture into an enclosure weighing less than ten pounds.

LEGAL ISSUES

In light of this Court's May 26 summary judgment ruling [DKT 227], the issue to be tried is whether the asserted claims are invalid in light of the prior art. There are several agreed principles of law and a number of contested legal issues that are applicable to this issue. In order to assist the Court in its assessment of the relevance and weight of the evidence to be presented, set forth below is a discussion of pertinent legal principles.

I.

THE SKILLED PERSON IN THE ART IS PRESUMED TO HAVE READ ALL PRIOR ART

The patent laws are clear that the prior art includes all prior art in the field of the inventor's endeavor. *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1339 (Fed. Cir. 2005) ("A reference is appropriate prior art if within the field of the inventor's endeavor.").

Prior art consists of more than commercial products or products in development; it encompasses publications, patent applications and knowledge of others. *See, e.g.*, 35 U.S.C. § 102 (a), (b) and (e). It includes published and patented teachings, even those that have not been implemented in embodiments. *Novo Nordisk Pharms., Inc. v. Bio-Tech. Gen. Corp.*, 424 F.3d 1347, 1355 (Fed. Cir. 2005). Evidence probative of the state of the art and the level of skill in

the art includes activities and documents that are not strictly prior art. *See, e.g., Nat'l Steel Car, Ltd. v. Canadian Pac. Rwy., Ltd.*, 357 F.3d 1319, 1338 (Fed. Cir. 2004) (finding clear error where district court did not consider drawings made by one with skill in the art in evaluating obviousness, even though those drawings were not in the prior art); *In re Epstein*, 32 F.3d 1559, 1563-64 (Fed. Cir. 1994) (undated abstracts used to substantiate prior art).

The parties agree that the person of ordinary skill in the art is presumed to be aware of ***all*** of the relevant prior art. *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) ("The person of ordinary skill in the art is a hypothetical person who is presumed to know [all] the relevant prior art.") (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)); *In re Carlson*, 983 F.2d 1032, 1038 (Fed. Cir. 1992) ("To determine patentability, a hypothetical person is presumed to know all the pertinent prior art, whether or not the applicant is actually aware of its existence.").

In addition, as a matter of law, the skilled person is presumed to have read the pertinent art. *In re GPAC*, 57 F.3d at 1579; *In re Carlson*, 983 F.2d at 1038. Therefore, the validity of claims over the prior art must be assessed based on all available prior art, and it is improper for SonoSite to suggest that one skilled in the art would not have been familiar with certain cited references.

II.

PRIOR ART DISCLOSURES NEED ONLY DISCLOSE THE CLAIM LIMITATIONS

A. With the Issue of Infringement Having Been Resolved and Discovery Having Been Based on the Current Claim Construction, It Would Be Improper to Amend that Construction or to Construe Additional Terms

A claim must be interpreted the same way for all purposes. *See, e.g., Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1330 (Fed. Cir. 2003) ("It is axiomatic that claims

are construed the same way for both invalidity and infringement."); *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) ("Because the claims of a patent measure the invention at issue, the claims must be interpreted and given the same meaning for purposes of both validity and infringement analyses.").

Although it did not raise this issue until after the claim construction proceedings, SonoSite asserts that claim 13 of the '412 patent should be rewritten to claim dependency on claim 12 rather than claim 11 because of an obvious error. SonoSite has failed to establish that it is entitled to correction of the claim. Correction is appropriate only when (1) there is no reasonable debate as to a claim's intended meaning and (2) the prosecution does not suggest a different interpretation. *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed. Cir. 2003). Neither prong is satisfied here. SonoSite's expert testified that GE's understanding of claim 13 was a "possibility" that he himself had previously thought of and raised with SonoSite's counsel. Moreover, a review of the '412 file history confirms the same dependency in the pending application as that recited in the issued claims. Where there are two equally plausible interpretations of a claim, it cannot be corrected. *Id.* at 1358. Alternatively, at the very least, the Court should determine that claim 13 should remain as written.[2]

SonoSite requests reconsideration of parts of the Court's *Markman* ruling and construction of terms not previously construed. The Court has already resolved the infringement question based on the existing claim interpretation. Any change in construction would require

[2] SonoSite moved for summary judgment that the Chiang '658 patent does not anticipate claims 13 and claim 14, which depends on claim 13, based solely upon its "corrected" interpretation of claim 13. Because the Court has not yet ruled on whether claim 13 may be corrected, the issue of whether Chiang anticipates claims 13 and 14 remains for trial.

revisiting that issue. Accordingly, SonoSite's various untimely requests for claim construction should not be entertained.

B. Validity Must Be Assessed Based on the Actual Words in the Claims, Not on Features and Uses Not Included in the Claims

The parties have agreed that the following legal principles are correct:

> *Uncontested Issue No. 1*: For purposes of assessing their validity, the claims of the '412 patent are limited to their terms as interpreted by the Court.
>
> *Uncontested Issue No. 2:* In assessing whether the claimed subject matter of the asserted '412 claims is invalid over the prior art, it is not proper to require that the prior art teach a high level of performance

Nonetheless, SonoSite contends that the claims should be understood to be limited to a particular use or to a particular level of performance. As a matter of law, however, it is improper to read either a use limitation or a performance requirement into the claims of the '412 patent because the words of the claims do not recite any such limitation.

The claims are the ***sole*** measure of the patent right and give notice of the scope of patent protection.

> Consistent with its scope definition and notice functions, the claim requirement presupposes that a patent applicant ***defines his invention in the claims***, not in the specification. After all, the claims, not the specification, provide the measure of the patentee's right to exclude.

Johnson & Johnston Assocs., Inc. v. R.E. Serv. Co., 285 F.3d 1046, 1052 (Fed. Cir. 2002) (emphasis added). Accordingly, invalidity is determined by comparing the patent claims – not unclaimed matter mentioned in the specification – to the prior art. *See, e.g., Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988) ("It is the claims that define the claimed invention. And it is claims, not specifications, that are anticipated.") (citation omitted); *see also Lencco Racing Co., Inc.. v. Jolliffe*, Nos. 99-1074, 99-1079, 99-1080, 1999

U.S. App. LEXIS 14239, at *7-8 (Fed. Cir. June 29, 1999); *In re Huang*, 100 F.3d 135, 138 (Fed. Cir. 1996) ("[An] obviousness analysis focuses on the invention ***as claimed***.") (emphasis in original).

The claim language defines the purported invention. *See Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004) (stating: "[i]t is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude," and citing *Aro Mfg., Co. v. Convertible Top Replacement Co*., 365 U.S. 336, 339 (1961) ("[T]he claims made in the patent are the sole measure of the grant.")); *Altoona Publix Theatres v. Am. Tri-Ergon Corp*., 294 U.S. 477, 487 (1935) ("Under the statute it is the claims of the patent which define the invention."); *Cont'l Paper Bag Co. v. E. Paper Bag Co*., 210 U.S. 405, 419 (1908) ("In making his claim ***the inventor is at liberty to choose his own form of expression, and while the courts may construe the same*** in view of the specifications and the state of the art, ***they may not add to or detract from the claim***." (citation omitted) (emphasis added)); *White v. Dunbar*, 119 U.S. 47, 52 (1886) ("The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and ***it is unjust to the public ... to construe it in a manner different from the plain import of its terms***." (emphasis added)); *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876) ("[The statutorily required] distinct and formal claim is, therefore, of primary importance, in the effort to ascertain precisely what it is that is patented to the appellant in this case."))

> [I]t is manifest that a claim must explicitly recite a term in need of definition before a definition may enter the claim from the written description. This is so because the claims define the scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim. . . . ***[T]he resulting claim interpretation must, in the end, accord with the***

> ***words chosen by the patentee to stake out the boundary of the claimed property***.

Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (internal citations omitted) (emphasis added). SonoSite may not require that the prior art disclose any feature that is not included ***in words*** in the asserted claims.

C. It Is Improper to Limit the Asserted Apparatus Claims to Any Particular Performance Standard

SonoSite repeatedly tries to engraft an image quality standard onto the claim language. But it is not appropriate to limit the claims to a particular level of performance that is not recited in the claims. *See, e.g., In re Van Geuns*, 988 F.2d 1181, 1184-85 (Fed. Cir. 1993) (refusing to interpret otherwise broad claim to be limited to the degree of precision required for medical imaging). Absent words in a claim requiring some degree of performance, a claim broadly covers any device meeting the claim limitation – not just those that are commercially viable.

> Enablement does not require an inventor to met lofty standards for success in the commercial marketplace. ***Title 35 does not require that a patent disclosure enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect.***
>
> Title 35 requires only that the inventor enable one of skill in the art to make and use the full scope of the claimed invention. Thus, when an invention claims a general system to improve the cleaning process for semiconductor wafers, the disclosure enables that invention by showing improvements in the overall system. *See, e.g., Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528 , 1533 (Fed. Cir. 1991) ("***The enablement requirement is met if the description enables any mode of making and using the claimed invention***."). Of course, if a patent claimed a system that achieved cleanliness up to a specified numerical particle-free range, then enablement would require disclosure of a method that enables one or ordinary skill to achieve that range without undue experimentation. Thus, the level of disclosure necessary to satisfy section 112 of title 35 varies according to the scope of the claimed invention.

CFMT, Inc. v. Yieldup Int'l. Corp., 349 F.3d 1333, 1338 (Fed. Cir. 2003) (emphasis added).

In *CFMT*, the Federal Circuit found that claims stating no standard of cleaning were not limited to a high level of cleaning, but broadly encompassed any level of cleaning. Likewise, in this case, the asserted claims contain no requirement regarding image quality, and, indeed, only claim 14 even mentions an image display. Any array transducer and sampled data beamformer, no matter how crudely operative, are within the scope of the asserted claims for purposes of assessing whether disclosures in the prior art disclose the subject matter of claim 11.

D. It Is Improper to Limit the Asserted Apparatus Claims to Any Particular Use

SonoSite is also improperly attempting to limit the claimed invention to a single field of use disclosed in the specification—*i.e.*, medical diagnostics, where the claims do not suggest (let alone recite) such a limitation. SonoSite overlooks a fundamental rule that even "[w]hen the specification describes a single embodiment to enable the invention, [the Federal Circuit] will not limit broader claim language to that single application unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *See Abbott Labs. v. Sandoz, Inc.*, __ F.3d __, 2009 WL 1371410, at *4 (Fed. Cir. May 18, 2009) (concluding that specification alone could not limit the claims to a preferred embodiment); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) ("[T]his court has expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment."); *Ventana Med. Sys., Inc. v. Biogenex Labs., Inc.*, 473 F.3d 1173, 1181-82 (Fed. Cir. 2006) ("When the claim addresses only some of the features disclosed in the specification, it is improper to limit the claim to other, unclaimed features. . . . Although the preferred embodiments [described in the specification] also contain a "direct dispensing" feature, the inventors were not required to claim this feature in the [patent-in-suit] and, indeed, did not do so.").

While the '412 patent title refers to a system for use in medical diagnostic applications, it does not limit the invention to those applications. The '412 patent's description does not include words or expressions of manifest exclusion or restriction such as to disavow any other interpretation of the claims.

Where patent claims, as here, are directed to structure, the scope of the claims cannot "embrace only certain uses of that" machine or composition of matter; that would cause the machine or composition of matter claims to "mutate into method claims." *Union Oil Co. of Cal. v. Atl. Richfield Co.*, 208 F.3d 989, 995 (Fed. Cir. 2000) (agreeing with district court's interpretation of claim term and "refusing to narrow the scope of the claimed compositions to specific uses"). In *Paragon Solutions, LLC v. Timex Corp.*, the district court construed the claim term "displaying real-time data" to mean that the data is displayed without "contextually meaningful delay." __ F.3d __, 2009 WL 1424443 (Fed. Cir. May 22, 2009) at *9. The Federal Circuit reversed because the district court's "construction injects a use limitation into a claim written in structural terms." *Id.* at *13. Relying on the principle that apparatus claims cover what a device is, not what a device does, the Federal Circuit held that "[c]onstruing a non-functional term in an apparatus claim in a way that makes direct infringement turn on the use to which an accused apparatus is later put confuses rather than clarifies, frustrates the ability of both the patentee and potential infringers to ascertain the propriety of particular activities, and is inconsistent with the notice function central to the patent system." *Id.*

Nor can the title of the '412 patent form a basis to import limitations into the claim. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1313 (Fed. Cir. 1999) ("Consequently, that the patent title has only been mentioned once by this court in the context of

claim construction and, even then, merely to make an illustrative point in one sentence, makes a powerful statement as to the unimportance of a patent's title to claim construction.").

Evidence at trial should be limited to that evidence relevant to the claims as written, not as SonoSite wishes it could rewrite them. SonoSite chose to draft claims far broader than the device proposed to DARPA. SonoSite cannot now try to read in limitations to avoid invalidation. The proper inquiry at trial is the extent to which the prior art discloses what is recited in the claims.

III.

A PRIOR ART REFERENCE NEED ONLY DISCLOSE THE CLAIM LIMITATIONS; IT NEED NOT HAVE MADE ANY DEVICE

A. A Reference Need Not Have Created the Claimed Subject Matter; It Must Merely Suggest How It Can Be Made

A patent claim is invalid as "anticipated" under 35 U.S.C. § 102(b) if a printed publication published more than one year prior to the filing date of the patent at issue discloses explicitly or inherently each claim limitation. *See, e.g.*, *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1381 (Fed. Cir. 2007) (citing *Telemac v. Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1327 (Fed. Cir. 2001)); *SRI Int'l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1192 (Fed. Cir. 2008). A limitation is inherently present if the prior art reference necessarily includes that limitation. *Leggett & Platt, Inc. v. Vutek, Inc.*, 537 F.3d 1349, 1354 (Fed. Cir. 2008).

SonoSite apparently contends that suggestions in the prior art to do what is claimed cannot be used to invalidate a claim. Federal Circuit law is clear that, even for anticipation, there is no requirement that any device have been made: "anticipation does not require actual performance of suggestions in a disclosure. Rather, anticipation only requires that those suggestions be enabled to one of skill in the art." *Novo Nordisk Pharms.*., 424 F.3d at 1355

(internal quotation marks omitted); *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380 (Fed. Cir. 2003) ("Anticipation does not require the actual creation or reduction to practice of the prior art subject matter; anticipation requires only an enabling disclosure.")

Indeed, the Federal Circuit has affirmed a finding of anticipation based only on a suggestion in a letter to the editor of Nature Magazine that an alternative to nicotine gum "might" be transdermal application in the manner of some drug patches. *Ciba-Geigy Corp. v. Alza Corp.*, 864 F. Supp. 429, 431-32 (D.N.J. 1994), *aff'd* 68 F.3d 487 (Fed. Cir. 1995). That passing suggestion was adequate to anticipate a claim detailing a patch having multiple layers and containing nicotine.

Accordingly, even if SonoSite were correct that a teaching in the prior art is "theoretical," that fact is irrelevant. If that "theoretical" disclosure includes limitations of the claim, it anticipates those limitations. Therefore, SonoSite's challenge to the "theoretical" nature of the cited prior art is improper.

B. An Anticipatory Reference Must Enable One to Make Only What Is Claimed; It Need Not Demonstrate the Utility of the Claimed Subject Matter

There is no requirement that a reference be enabling for purposes of the obviousness analysis of 35 U.S.C. § 103. *See Amgen Inc.*, 314 F.3d at 1357 (noting that enablement of prior art is not a requirement to prove invalidity under section 103). However, a contested issue between the parties is the extent to which an anticipatory prior art reference needs to enable a claimed structure. In its summary judgment papers, SonoSite argued that the Karaman Reference did not teach one skilled in the art ***both how to make*** an under-ten-pound sampled data beamformer and array transducer ***and how to use*** such a device. SonoSite was not applying the current legal standard.

The Federal Circuit has recently unequivocally stated that there is no requirement that an anticipatory reference teach ***how to use*** a claimed structure.

> We have at times framed the issue of enablement under § 102 as a question of whether one of ordinary skill in the art would know how to "make and use" the invention based on the reference's disclosure. *See, e.g., Impax Labs., Inc. v. Aventis Pharms., Inc.*, 468 F.3d 1366, 1381 (Fed. Cir. 2006) ("[A] prior art reference must be enabling so that the claimed subject matter may be made or used by one skilled in the art."); *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1374 (Fed. Cir. 2001) ("To anticipate, the reference must also enable one of skill in the art to make and use the claimed invention."). Taken out of context, these formulations of our [§] 102 enablement standard arguably support a use of utility requirement divorced from any "make" requirement. A thorough reading of our case law, however, makes clear that a reference need disclose no independent use or utility to anticipate a claim under §102. *E.g., Novo Nordisk Pharm., Inc. v. Bio-Tech. Gen. Corp.*, 424 F.3d 1347, 1355 (Fed. Cir. 2005) ("The standard for enablement of a prior art reference for purposes of anticipation under § 102 differs from the enablement standard under 35 U.S.C. § 112."); *Rasmusson v. SmithKline Beecham Corp.*, 413 F.3d 1318, 1326 (Fed. Cir. 2005) ("[A] prior art reference need not demonstrate utility in order to serve as an anticipating reference under [§] 102."); *In re Hafner*, 410 F.2d 1403, 1405, 56 C.C.P.A. 1424 (CCPA 1969) ("[Section] 112 provides that the specification must enable one skilled in the art to 'use' the invention whereas § 102 makes no such requirement as to an anticipatory disclosure.").
>
> ***The confusion stems from the fact that where a method claim is at issue, it is a largely meaningless formulation of the standard to require a reference to disclose how to "make" that method in order to anticipate. For method claims, the "make" requirement becomes, in effect a "use" requirement. The only way one can show that a reference enables the method is to show that a person of ordinary skill would know how to use – in other words, to practice or to carry out – the method in light of the reference. This does not mean, however, that the prior art reference must demonstrate the invention's utility***. For instance, in the context of a claimed method for treating a disease, a prior art reference need not disclose "proof of efficacy" to anticipate the claim. *Impax Labs.*, 545 F.3d at 1315; *Rasmusson*, 413 F.3d at 1326. ***Gleave's claims are to compositions of matter – oligonucleotides – and therefore a reference satisfies the enablement requirement of § 102(b) by showing that one of skill in the art would know how***

> ***to make the relevant sequences disclosed in Wraight***. Thus, the fact that Wraight provides "no understanding of which of the targets would be useful" is of no import, because Gleave admits that it is well within the skill of an ordinary person in the art to make any oligodeoxynucleotide sequence. *See* Appellant's Br. 10. As such, Wraight is an enabling disclosure sufficient to anticipate Gleave's invention under § 102(b).

In re Gleave, 560 F.3d 1331, 1335-36 (Fed. Cir. 2009) (emphasis added).

Accordingly, for purposes of anticipation, the Chiang patent and Karaman Reference need only teach how to make a sampled data beamformer and a transducer that are small enough to fit into an under-ten-pound enclosure. They do not need to teach the utility of those devices.[3]

C. A Reference Is Enabling If Its Disclosures, Coupled With the Knowledge of Those Skilled in the Art, Teach How to Make the Claimed Invention

A reference is enabling if one skilled in the art can make the claimed invention without undue experimentation. *In re Elsner*, 381 F.3d 1125, 1128 (Fed. Cir. 2004); *Garmin Ltd. v. TomTom, Inc.* 468 F. Supp. 2d 988, 1010 (W.D. Wis. 2006). In other words, the issue is "whether one skilled in the art to which the invention pertains could take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention on which a patent is sought." *Garmin Ltd.*, 468 F. Supp. 2d at 1010 (citing *Elsner*, 381 F.3d at 1128). In determining whether a prior art reference is enabling, it is proper for the skilled person to consider his own knowledge. *See In re Paulsen*, 30 F.3d 1475, 1480-81 (Fed. Cir. 1994) (noting that the knowledge of a person of ordinary skill in the pertinent art must be considered with the prior art reference in determining if the reference is enabled).

---

[3] The enablement standard for the prior art differs from the enablement required of a patentee as the *quid pro quo* for the patent – enablement of making ***and*** using the claimed invention. 35 U.S.C. § 112; *see CFMT*, 349 F.3d at 1338.

What must be enabled is the invention disclosed in the claims. *Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1285 (Fed. Cir. 2007) (the enablement requirement arises only as to the claim limitations); *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008). Therefore, SonoSite's apparent contention that it is necessary to teach how to connect the claimed components to other unclaimed components that a system may contain is wrong as a matter of law. The proof of enablement of a prior art reference need only teach how to make the claimed components – in the case of claim 11, a beamformer and the transducer of a suitably small size. There is no need to teach how to use even those two components.

Moreover, where a claim covers multiple embodiments (here, different kinds of beamformers), the prior art reference need only enable one embodiment or species encompassed by the patent claim to anticipate. *See Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1321 (Fed. Cir. 2004). Accordingly, proof that the prior art discloses a CCD sampled data beamformer anticipates the entire class of sampled data beamformers.[4]

D. The Disclosure in the Prior Art of One Kind of Sampled Data Beamformer Constitutes Anticipation of that Limitation

The disclosure in the prior art of one example of a device that falls within a claimed class of devices anticipates the class of devices. *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 971 (Fed. Cir. 2001) ("Our case law firmly establishes that a later genus claim limitation is anticipated by, and therefore not patentably distinct from, an earlier species claim.").

---

[4] This is to be contrasted with the requirement that a patentee, wishing to secure the benefit of the exclusionary power of a patent, must enable all embodiments that he chooses to claim. 35 U.S.C. § 112; *Liebel-Flarsheim Co.*, 481 F.3d at 1380 (the specification must enable a person of ordinary skill in the art to make and use the full scope of the claimed invention).

Accordingly, this Court's conclusion in its summary judgment ruling [DKT 227] that the Karaman Reference discloses one kind of sampled data beamformer (a digital beamformer) necessarily requires a finding that the sampled data beamformer limitation – as defined in the *Markman* order – is literally satisfied by the Karaman Reference. This principle is also applicable to the Chiang patent – its disclosure of an analog sampled data beamformer anticipates the "sampled data beamformer" limitation of claim 11.

IV.

BECAUSE DARPA PROVIDED A MOTIVATION TO MAKE A SMALL ULTRASOUND DEVICE, THE CLAIMED SUBJECT MATTER WHICH COMBINES KNOWN COMPONENTS IS OBVIOUS

A. Had the Patent Office Applied the *KSR* Standard for Obviousness, the Claims Would Not Have Been Allowed

When the '412 patent issued, the Patent Office was applying a now incorrect patentability standard under which the prior art could not render claims invalid absent a clear "teaching, suggestion or motivation" in some cited reference (sometimes referred to as "TSM") to make a claimed combination. In 2007, the Supreme Court concluded that that requirement of a virtually explicit teaching to combine the prior art was misguided. Instead, an invention now must be held invalid as obvious under 35 U.S.C. § 103 if the claimed invention is nothing more than the predictable use of prior art elements according to their established functions. *KSR Int'l Co.*,550 U.S. at 421. The evidence will show that is the case here.

As explained by the Supreme Court, claims that merely combine known devices to perform their known functions (here, a standard beamformer and a standard transducer) must be viewed skeptically:

> For over a half century, the Court has held that a "patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources

> available to skillful men." . . . The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.

Id. at 415-16. Here, the claims merely combine an expressly taught miniature beamformer chip or CCD beamformer with other known ultrasound components to predictably produce a lighter weight ultrasound product. The evidence will show that the further questions posed in *KSR* compel a finding of obviousness.

> Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community of present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, ***all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue***. . . . As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claims, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 418 (emphasis added). In this case, the evidence will include both an explicit request for the claimed combination and express teachings of the claimed combination.

> Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, ***it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does***.

Id. at 418. Millions in government funding through DARPA was certainly a reason to make the '412 patent combination.

The Supreme Court emphasized that a need in a particular field for a claimed combination (here the request by DARPA) is particularly probative of obviousness.

> In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103. ***One of the ways in which a patent's subject matter can be***

> ***proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims***. . . . Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. . . . ***Common sense teaches***, however, that familiar items may have obvious uses beyond their primary purposes, and ***in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle***.

Id. at 419-20 (emphasis added). Here there existed a recent known problem – the government's request for a small durable portable device – and the prior art taught how to make tiny beamformer chips and miniature CCD beamformers. While SonoSite will contend those chips needed to be adapted to a small device, in doing so it ignores the Supreme Court's further caution that a person of ordinary skill has creativity and is not bound to follow prior art teachings like an automaton. Instead, that person is assumed to look at the potential available solutions (here using smaller parts and/or fewer features to achieve weight reduction).

> A person of ordinary skill is also a person or ordinary creativity, not an automaton.

Id. at 421. The evidence will show that the '412 patent merely adopts one of the known means to reduce size – resort to a small beamformer. Under *KSR*, this does not merit grant of a patent.

> When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Id. at 421.

This case is like *KSR*. In *KSR*, the prior art taught the separate components of the claims.

> In other words Redding provided an example of an adjustable pedal and Smith explained how to mount a sensor on a pedal's support structure, and the rejected patent claim merely put these two teachings together.

Id. at 411. In *KSR*, the Supreme Court found the claimed combination obvious despite the need to adapt one older mechanical prior art component to make it suitable for combination with the more modern computerized prior art components in the other reference in order to arrive at the claimed combination.

Here there is no need to modify the prior art – the prior art already taught array transducers with sampled data beamformers. The only change needed was to incorporate them into a small enclosure.

B. It Is Legally Incorrect to Discount the Teachings in a Reference on the Basis of Age of the Reference

In the Court's Summary Judgment Order, the Court discounted the 1988 O'Donnell Reference because:

> plaintiff offers no evidence that an ultrasound system was created using this technology in the eight years before plaintiff filed its patent application. If the technology to create a "miniature digital beamformer existed and was an obvious innovation in 1988, why would it take nearly eight years before any company in the ultrasound business created a compact system?"

Summary Judgment Order [DKT 227] at 44. As a matter of law, the age of a reference alone has never been a basis for discounting the relevance of a reference's teaching. *See Iron Grip Barbell Co., Inc. v. USA Sports Inc*., 392 F.3d 1317, 1324-25 (Fed. Cir. 2004).

> Iron Grip places significant emphasis on the fact that, before it filed for the '015 patent, there was no three-grip plate being offered in the retail market. It argues that the absence of such a three-grip plate in light of the prior art speaks to the nonobviousness of its invention. However, Iron Grip has presented no evidence of a long-felt need for three-grip weight plates or the failure of others. ***Absent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness***.

Id. (emphasis added). Moreover, "[t]he mere age of [a] reference[] is not persuasive of the unobviousness of the combination of their teachings" absent proof that a person skilled in the art

was actually aware of the references, tried to combine the teachings and failed to succeed. *In re Wright*, 569 F.2d 1124, 1127 (C.C.P.A. 1976) (finding a combination of references between 33 and 98 years old was obvious). *See also In re Blake*, 352 F.2d 309, 312 (C.C.P.A. 1965) ("We have considered appellants' remaining arguments, *inter alia*, that the age of the references is probative of non-obviousness, but find them unconvincing of a different result"); *In re Mapelsden*, 329 F.2d 321, 323 (C.C.P.A. 1964) ("The age of the references, which issued in 1932 and 1940, respectively, is advanced by appellant as an indication that their combination is relied on in the rejection is not obvious. However, we do not find that circumstance of any significant weight here."); *In re Beauchamp*, 210 F.2d 309, 312 (C.C.P.A. 1954) ("The fact that the patent to Murphy was issued more than 29 years ago nowise invalidates the teachings of the reference with respect to their anticipatory or suggestive force."); *cf. Novar Elecs. Corp. v. Dann*, 417 F. Supp. 185, 187 (D.D.C. 1976) ("In addition to these cited references, the Commissioner called attention to numerous earlier patents covering mechanical burglar alarms which provide devices for sounding an alarm and automatically lighting a light even before the age of electricity. . . . Activating a light by sound is not new in the art.").

In this case, there will be no evidence of long-felt need or failure by others. Instead, the evidence will show that, once there was a demand created by DARPA's request for proposals, systems far more sophisticated than those required by the claims of the '412 patent were promptly developed. As a matter of law, the references cannot be discounted on the basis of age.

C. Prior Art Is Probative of Obviousness Even When Its Teachings Are Not Wholly Favorable

"A [prior art] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Icon*

Health & Fitness, Inc., 496 F.3d 1374, 1381 (Fed. Cir. 2007). The Federal Circuit has made clear that this requires a showing that something within the prior art reference criticizes, discredits or otherwise discourages a person of ordinary skill in the art from using the prior art to practice the claims. *Ricoh Co., Ltd. v. Quanta Computer Inc.*, 550 F.3d 1325, 1332 (Fed. Cir. 2008). The proper focus is thus whether the reference teaches away from the claim limitations. *Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1328 (Fed. Cir. 1998) (rejecting argument that prior art taught away from the claimed limitations); *Tokyo Keiso Co. v. SMC Corp.*, Nos. 2008-1045, 2008-1112, 2009 U.S. App. LEXIS 302, at *16-17 (Fed. Cir. Jan. 9, 2009) (finding a reference not to teach away from the claimed invention).

The evidence will show that the cited prior art discusses how the developments discussed in the prior art offer improvements and, in some cases, note that there is room for more improvement. Under the foregoing precedent, that is not a teaching away. Nor is Chiang's choice of one of several alternative means of implementing a sampled data beamformer a teaching away. *para-Ordnance Mfg. v. SGS Importers Int'l*, 73 F.3d 1085, 1090 (Fed. Cir. 1995) (reference did not teach away where it did not warn a person of ordinary skill against using technology claimed in asserted claims; must weigh reference against other prior art that teaches propriety of employing claimed technology).

D. Secondary Considerations Are Relevant Only If They Relate to Limitations in the Claims

Where there is a strong prima facie showing of obviousness, secondary considerations of non-obviousness cannot raise a triable issue of fact. *Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1344 (Fed. Cir. 2008); *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *see also In re DBC*, 545 F.3d 1373, 1383 (Fed. Cir. 2008).

In this case, during discovery the secondary considerations urged by SonoSite were commercial success, failure of others to address a long-felt need and skepticism.

The evidence will show no long-felt need for the reasons discussed above. For the reasons discussed below, the evidence will also show no commercial success or skepticism.

1. Commercial Success Is Irrelevant Unless SonoSite Produces Evidence of Success and of Its Nexus to Novel Claimed Features

To the extent SonoSite attempts to prove commercial success as a secondary consideration, it must establish that the purported commercial success is attributable to the patented features, as opposed to other non-patented features of SonoSite's products. *See Friskit, Inc. v. RealNetworks, Inc.*, No. 2007-1583, 2009 U.S. App. LEXIS 405, at *17-18 (Fed. Cir. Jan. 12, 2009) (finding that patentee's inability to relate success of its product to the novel aspects of the claimed invention was fatal to its claim of commercial success as evidence of non-obviousness); *In re DBC*, 545 F.3d at 1384 (noting that without establishing a nexus to the merits of the claimed invention, the mere submission of sales evidence, however substantial, is insufficient to demonstrate non-obviousness).

Failure to establish such a nexus between any alleged commercial success of SonoSite's products and any novel features of the asserted claims precludes consideration of commercial success as a secondary consideration of non-obviousness. *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006) ("[I]f the commercial success is due to an unclaimed feature of the device, the commercial success is irrelevant. So too if the feature that creates the commercial success was known in the prior art, the success is not pertinent.") (footnote omitted).

SonoSite "carries the burden of demonstrating that the 'thing … that is commercially successful is the invention disclosed and claimed in the patent.'" *J.T. Eaton & Co., Inc. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) (citation omitted); *Asyst Techs., Inc. v.*

Emtrak, Inc., 544 F.3d 1310, 1316 (Fed. Cir. 2008) (no nexus even though commercial embodiments of the invention may have enjoyed commercial success); *F.B. Leopold Co. v. Roberts Filter Mfg. Co.*, Nos. 96-1218, -1278, 96-1456, -1471, 1997 U.S. App. LEXIS 16233, at *9-10 (Fed. Cir. July 2, 1997).

SonoSite must offer "proof 'that the sales were a direct result of the unique characteristics of the claimed invention,'" not other economic and commercial factors. *In re DBC*, 545 F.3d at 1384 (citation omitted); *In re Huang*, 100 F.3d at 140 (patentee has the burden of demonstrating nexus); *Ormco Corp.*, 463 F.3d at 1312-13 (no commercial success because sales were due to claimed features that existed in prior art and not novel features of the patent; also commercial success not established where success was due "'partially' to claimed features" but also to unclaimed features); *In re Nettel*, No. 91-1398, 1992 U.S. App. LEXIS 14511, at *9 (Fed. Cir. June 10, 1992) (no nexus where sales could have resulted from aggressive sales campaigns, price cutting, or features disclosed in an unasserted claim); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (no commercial success where success was due to targeted marketing, promotional offers and product packaging).

SonoSite cannot premise commercial success on sales figures without establishing that those sales are due to the novel patented features. *In re Sneed*, 710 F.2d 1544, 1551 (Fed. Cir. 1983) (gross sales figures could not establish commercial success because patentee's business included practices unrelated to the asserted claims and there was no allocation among various aspects of business).

The evidence will show that there has never been any commercial success for a stripped down product of the type recited in the '412 patent claims. Indeed, the evidence will show that no one has ever sold such a product as there has never been any demand for it.

2. Skepticism Also Fails as a Measure of Obviousness Unless SonoSite Produces Evidence of a Nexus With Claimed Features

Alleged skepticism by those skilled in the field is another secondary consideration. Like commercial success, failure to tie any alleged skepticism to the patented features also precludes consideration of this factor in the obviousness inquiry. *See Friskit*, 2009 U.S. App. LEXIS 405 at *19-20 (noting that experts' expressed skepticism was entitled to little weight because it concerned market forces and not technical challenges to a person of ordinary skill); *Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 232 (D.D.C. 1990) (skepticism was entitled to little weight because it was not related to the technical merit of the claimed invention), *aff'd*, 959 F.2d 226 (Fed. Cir. 1992).

Here the evidence will show that there was no skepticism related to the ability to make a lightweight barebones device containing a sampled data beamformer and transducer.

V.

BECAUSE CHIANG FILED HER PATENT BEFORE THE '412 PATENT FILING DATE, SONOSITE MUST PROVE PRIOR INVENTION TO AVOID INVALIDATION OVER CHIANG

A. Prior Art Less Than a Year Before the '412 Patent Filing Date Must Be Antedated to Avoid Invalidation

When an item of prior art predates the filing of a patent application by a year or more, its disclosures are prior art under 35 U.S.C. § 102(b). In that case, proof of prior invention or conception by the patentee cannot avoid invalidation. *Pfund v. United States*, 40 Fed. Cl., 313, 333 (Fed. Cl. 1998) ("If a document became publicly accessible more than one year prior to the filing date of a patent application, then the document is prior art under section 102(b) regardless of when the patentee conceived of the invention.").

Accordingly, any evidence of conception or prior invention offered by SonoSite is irrelevant unless the reference has an effective date less than a year before the June 28, 1996

filing date of the '412 patent. The only reference that falls into that category is the Chiang patent.

B. SonoSite Has the Burden of Producing Evidence of Prior Invention If It Contends that the Chiang Patent Is Not Prior Art

As stated above, prior conception and invention have no relevance with regard to the prior art references dated more than a year before the filing date of the '412 patent. However, with regard to the Chiang patent (filed one day less than a year before the '412 patent), the pertinent question is: did the inventors of the '412 patent invent what is claimed before the June 29, 1995 filing date of the Chiang patent? In this Court's May 26 summary judgment ruling, the Court determined that SonoSite had failed to prove prior conception. [DKT 227 at 39.] Nonetheless, SonoSite apparently intends to press the issue at trial. The pertinent legal principles compelling a finding of no prior invention are set forth below.

An invention consists of two parts: (1) the mental part of the invention, known as the conception, and (2) the physical part of the invention, known as the reduction to practice. Conception and reduction to practice are questions of law predicated on subsidiary factual findings. *Purdue Pharma L.P. v. Boehringer Ingelheim GmbH*, 237 F.3d 1359, 1365 (Fed. Cir. 2001). "To antedate (or establish priority) of an invention, a party must show either an earlier reduction to practice, or an earlier conception followed by a diligent reduction to practice." *Id.* (citing *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993)). In this case, SonoSite admits that it did not actually reduce its invention to practice until early 1998 – long after the Chiang patent filing date. Given this circumstance, SonoSite can antedate the Chiang patent only if SonoSite produces evidence to establish diligent efforts to complete the invention, including conception of the subject matter of the '412 patent. *Id.*

SonoSite's proof of conception must be sufficiently complete so as to enable anyone of ordinary skill in the art to reduce the concept to practice. *Singh v. Brake*, 222 F.3d 1362, 1367 (Fed. Cir. 2000) ("Conception is the 'formation in the mind of the inventor, of a definite and permanent idea of the ***complete and operative invention***, as it is hereafter to be applied in practice." (emphasis added) (citing *Kridl v. McCormick*, 105 F.3d 1446, 1449 (Fed. Cir. 1997)). Conception must include every feature of every limitation of the claimed invention. *Slip Track Sys., Inc. v. Metal-Lite, Inc*., 304 F.3d 1256, 1263 (Fed. Cir. 2001) (citing *Kridl v. McCormick*, 105 F.3d 1446, 1449 (Fed. Cir. 1997)). *See also Coleman v. Dines*, 754 F.2d 353, 359 (Fed. Cir. 1985) ("in establishing conception a party must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception"). "Conception is complete only when the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Burroughs Wellcome Co. v. Barr Labs., Inc*., 40 F.3d 1223, 1228 (Fed. Cir. 1994). Where, as here, the claim broadly covers the genus of sampled data beamformers, SonoSite must prove conception of that genus, not just that it conceived one particular kind of sampled ***digital*** data beamformer. *See In re Jolley*, 308 F.3d 1317, 1323 n.2 (Fed. Cir. 2002).

In addition, SonoSite must produce independent corroboration of the antedating activities. *See Reese v. Hurst*, 661 F.2d 1222, 1225 (C.C.P.A. 1981) ("Adoption of the 'rule of reason' has not altered the requirement that evidence of corroboration must not depend solely on the inventor himself.") To meet its burden, SonoSite must proffer independent evidence. *Id.* at 1225 ("Independent corroboration may consist of testimony of a witness, other than the inventor,

to the actual reduction to practice or it may consist of evidence of surrounding facts and circumstances independent of information received from the inventor.")

The evidence will establish deficiencies in SonoSite's proffered proof of prior invention. Accordingly, Chiang is available as a prior art reference for all that it discloses.

CONCLUSION

Based upon the foregoing legal principles and the evidence to be adduced at trial, GE respectfully submits that the '412 patent should be invalidated for anticipation and obviousness.

Respectfully submitted,

June 3, 2009

By: *s/ Robert E. McAlhany, Jr.*

Allen A. Arntsen
aarntsen@foley.com
Jeffrey A. Simmons
jsimmons@foley.com
Justin Edwin Gray
jegray@foley.com
FOLEY & LARDNER LLP
150 E. Gilman Street
P.O. Box 1497
Madison, WI 53701-1497
Tel: 608-258-4293; Fax: 608-258-4258

Matthew M. Wolf
wolfm@howrey.com
Sara P. Zogg
zoggsara@howrey.com
HOWREY LLP
1299 Pennsylvania Avenue N.W.
Washington, DC 20004
Tel: 202-783-0800; Fax: 202-383-6610

Jennifer A. Sklenar
sklenarj@howrey.com
HOWREY LLP
550 S. Hope Street, Suite 1100
Los Angeles, CA 90071
Tel: 213-892-1800; Fax: 213-892-2100

Theresa M. Gillis
gillist@howrey.com
HOWREY LLP
153 East 53rd Street, 54th Floor
New York, NY 10022
Tel: 212-896-6631; Fax: 212-896-6501

Robert E. McAlhany, Jr., Ph.D.
mcalhanyr@howrey.com
HOWREY LLP
1950 University Avenue, 4th Floor
East Palo Alto, CA 94303
Tel: 650-798-3500; Fax: 650-798-3600

Attorneys for Plaintiff-Counter-Defendant

CERTIFICATE OF SERVICE

A true and correct copy of the above and foregoing document was served on the following counsel as follows on June 3, 2009.

/s/ Robert E. McAlhany, Jr.

Christopher G. Hanewicz
chanewicz@perkinscoie.com
John Singleton Skilton
jskilton@perkinscoie.com
Sarah C. Walkenhorst
swalkenhorst@perkinscoie.com
Lissa R. Koop
lkoop@perkinscoie.com
PERKINS COIE
One East Main Street, Suite 201
Madison, WI 53703
Tel: 608-663-7460
Fax: 608-663-7499

(*Via CM/ECF*)

Mark S. Parris
mparris@orrick.com
Jeffrey Cox
jcox@orrick.com
ORRICK HERRINGTON & SUTCLIFFE
701 Fifth Avenue, Suite 5700
Seattle, WA 98104
Tel: 206-839-4300
Fax: 206-839-4301

(*Via CM/ECF*)

M. Patricia Thayer
pthayer@orrick.com
ORRICK HERRINGTON & SUTCLIFFE
405 Howard Street
San Francisco, CA 94105
Tel: 415-773-5700
Fax: 415-773-5759

(*Via CM/ECF*)

Alan Chen
alanchen@orrick.com
ORRICK HERRINGTON & SUTCLIFFE
1000 Marsh Road
Menlo Park, CA 940258-1015
Tel: 650-614-7400
Fax: 650-614-7401

(*Via CM/ECF*)

Attorneys for Defendant and Counter-Plaintiff
SonoSite, Inc.